

Converting a Concentration Given as (mg U₃O₈/L) into (mg Natural U/L) Equivalent

(Natural Uranium has been assumed to consist of 100% U₂₃₈ in the shown example)

$$0.05 \frac{\text{mg U}_3\text{O}_8}{\text{L}} * \left\{ \frac{1 \text{ mol U}_3\text{O}_8}{842,000 \text{ mg U}_3\text{O}_8} * \frac{3 \text{ mol U}_{238}}{1 \text{ mol U}_3\text{O}_8} * \frac{238,000 \text{ mg U}_{238}}{1 \text{ mol U}_{238}} \right\} = 0.042 \frac{\text{mg U}_{238}}{\text{L}}$$